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Computational Semantics

An Introduction to Artificial Intelligence and Natural Language Comprehension

edited by **E. CHARNIAK**, University of Geneva, and **Y. WILKS**, University of Edinburgh.

FUNDAMENTAL STUDIES IN COMPUTER SCIENCE, Vol. 4

1976. viii + 294 pages. US \$19.00/Dfl. 55.00. ISBN 0-7204-0469-x

Computational Semantics is not so much a new subject as a new way of looking at old questions - those concerning meaning, language and understanding. The authors of this work regard Computational Semantics as the best way of solving the problem of language comprehension. So, although they provide an essential introduction to the more traditional methods of philosophy, logic, linguistics and psychology, these are presented from an 'artificial intelligence point of view'.

Within this overall concept, the book offers a frank discussion of the fundamental disputes which are inevitable in such a young discipline. It is written by a number of experts in different aspects of the field and based on lecture notes used to teach this new and complicated subject to people from diverse backgrounds. Their approaches have been inter-connect-

ed and harmonized in this textbook and it provides thorough introductory coverage for courses at undergraduate or graduate level.

CONTENTS: I. Introduction. 1. Inference and Knowledge I (*E. Charniak*). II. Linguistics. 2. Syntax in Linguistics (*E. Charniak*). 3. Semantic Markers and Selectional Restrictions (*P. Hayes*). 4. Case Grammar (*W. Samlowski*). 5. Generative Semantics (*M. King*). III Artificial Intelligence. 6. Parsing English I (*Y. Wilks*). 7. Semantic Nets as Memory Models (*G. Scragg*). 8. Inference and Knowledge II (*E. Charniak*). 9. Parsing English II (*Y. Wilks*). IV. Related Fields. 10. Psychology of Language and Memory (*W.F. Bischof*). 11. Philosophy of Language (*Y. Wilks*). V. Computation. 12. Programming in LISP (*M. King and P. Hayes*). Bibliography. Index.

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Computers in Education

Proceedings of the 2nd IFIP World Conference, Marseilles, September 1-5, 1975

edited by **O. LECARME**, University of Nice, and **R. LEWIS**, University of London.

1975. 1042 pages. US \$79.95/Dfl. 200.00. ISBN 0-7204-2843-2

Substantial progress has been made in the last few years in all areas where computers and education interact, from education in computer science to the uses of computers in teaching, learning and administration. There have been two main lines of emphasis: on the one hand, the increasing impact of the methodology of computer science in all areas, from the teaching of programming to new approaches to literature, and an increasing awareness of the underlying pedagogical principles of disciplines and the importance of these in the structure of computer based materials, on the other.

These proceedings provide a comprehensive survey of the latest achievements all over the world in this rapidly growing area. Over 160 contributed papers, published here in full, dealt with: the contribution of computer science to pedagogy; the influence of

computer science on the contents and methods of teaching for all disciplines in primary, secondary and University education; the evaluation of the role of computers in teaching (hardware, software and specific languages); the training in computer science of teachers of all disciplines; training in the various branches of information; the use of computers in continuous training programmes; the contribution of computer science to teaching in developing countries.

The importance of the subject and the range covered by the 2nd IFIP World Conference, which was attended by more than 1,000 scientists, should prove of interest to specialists in computer science as well as to all people interested in the newly emerging trends in education and/or involved in the development of new curricula and policies in all areas of education in developed and developing countries.

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